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Soli Conservation Service

Portland, Oregon



Water Supply Outlook for Oregon as of FEBRUARY 1, 1982



TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1900 snow courses in Western United States and in the Columbia Basin in British Columbia. Networks of automatic snow water equivalent and related data sensing devices, along with radio telemetry are expanding and will provide a continuous record of snow water and other parameters at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

COVER PHOTO: LONE CONE, NEAR NORWOOD COLORADO, BLANKETED

BY ITS WINTER MANTLE OF SNOW.

PUBLISHED BY SOIL CONSERVATION SERVICE

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, West Technical Service Center, Room 510, 511 N.W. Broadway, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

STATE ADDRESS

Alaska Room 129, 2221 East Northern Lights Blvd., Anchorage, Alaska 99504

Arizona Room 3008, Federal Building, 230 N. First Ave., Phoenix, Arizona 85025

Colorado (N. Mex.) P. O. Box 17107, Denver, Colorado 80217

Idaho Room 345, 304 N. 8th. St., Boise, Idaho 83702

Montana P. O. Box 98, Bozeman, Montana 59715

Nevada P. O. Box 4850, Reno, Nevada 89505

Oregon 1220 S. W. Third Ave., Portland, Oregon 97204

Utah 4420 Federal Bldg., 125 South State St., Salt Lake City, Utah 84138

Washington 360 U. S. Court House, Spokane, Washington 99201

Wyoming P. O. Box 2440, Casper, Wyoming 82602

PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Snow Surveys Branch, California Department of Water Resources, P.O. Box 388, Sacramento, California 95802 --- for British Columbia by the Ministry of the Environment, Water Investigations Branch, Parliament Buildings, Victoria, British Columbia V8V 1X5 --- for Yukon Territory by the Department of Indian and Northern Affairs, Northern Operations Branch, 200 Range Road, Whitehorse, Yukon Territory Y1A 3V1 --- and for Alberta, Saskatchewan, and N.W.T. by the Water Survey of Canada, Inland Waters Branch, 110-12 Avenue S.W, Calgary, Alberta T3C 1A6.



☆ GPO 593-038

WATER SUPPLY OUTLOOK FOR OREGON

and FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

Issued

FEBRUARY 1, 1982

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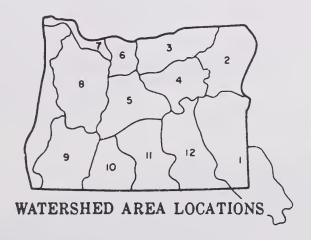
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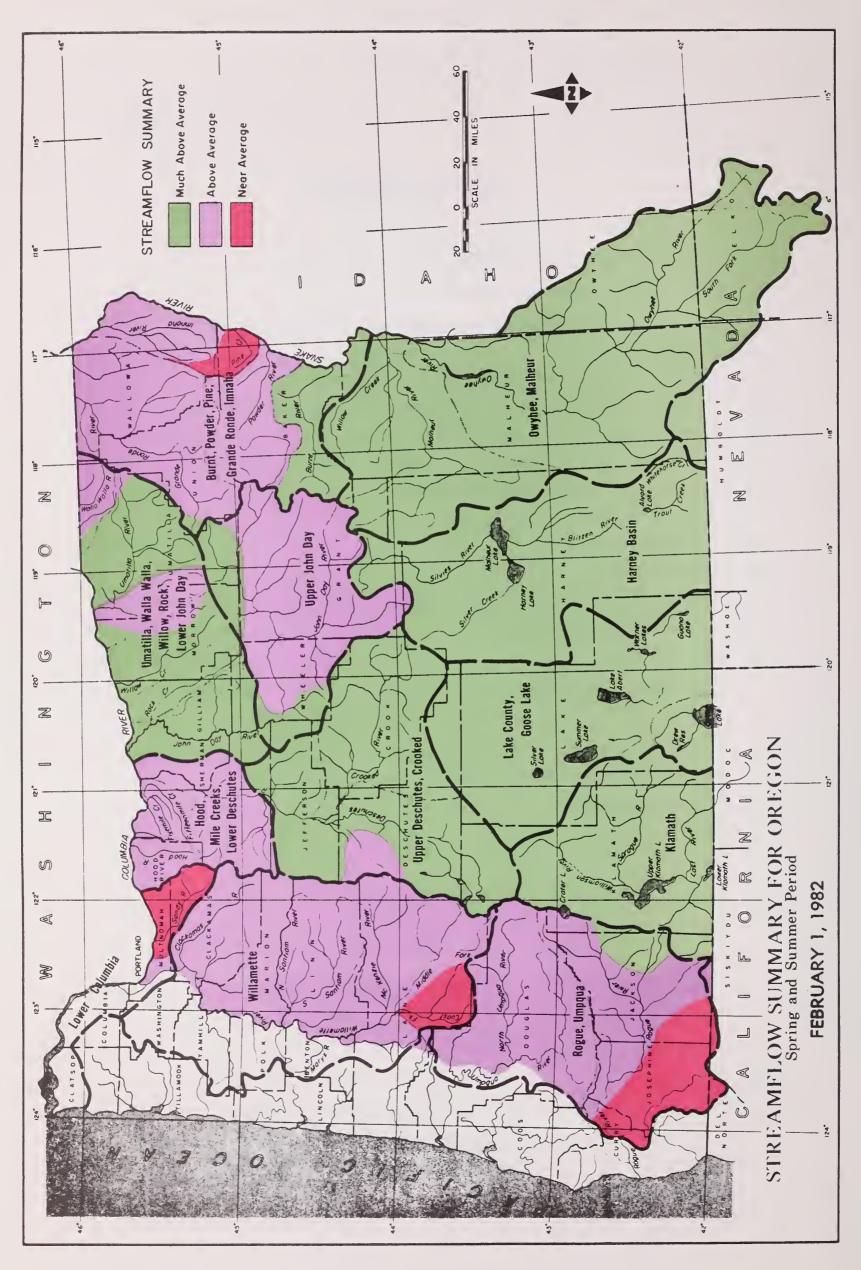
> SOIL CONSERVATION SERVICE 1220 S.W. THIRD AVENUE PORTLAND, OREGON 97204



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WATER SUPPLY OUTLOOK AND SUMMARY FOR OREGON

FEBRUARY 1, 1982

SNOW COVER

The mountain snowpack continued to build during January. It is 130 to 200% of average over most of the state. The Wallowas and Powder River in northeast Oregon have a snow cover 120 to 125% of average. Extreme southwest Oregon has a snowpack 100 to 125% of average. This area includes the Siskiyous and the lower elevation tributaries to the Rogue River. The snowpack is generally the best the state has seen for the last 8-10 years.

PRECIPITATION

Valley precipitation for the winter November-January period has been 110 to 180% of average. Some areas, principally the southern 1/3 of the state, received below normal amounts during January. However, this area remains at a much above average level of precipitation for the full winter period.

RESERVOIR STORAGE

Twenty-five major irrigation reservoirs were storing 1,841,000 acre feet on February 1. This is slightly below normal (at 94%), however many reservoir managers are holding water levels down in anticipation of the heavy snow melt runoff yet to come during the spring.

STREAMFLOW

Spring and summer streamflow is expected to be above to much above average over almost all of Oregon.

Representative forecasts of streamflow compared to the 1963-77 average are as follows:

STREAM	PERIOD	% OF AVERAGE
Owyhee net Inflow Grande Ronde @ LaGrande Umatilla @ Pendleton Deschutes @ Benham Falls Willamette, Md.Fk. nr. Oakridge Rogue @ Raygold Upper Klamath Lake net Inflow	April-Sept. April-Sept. April-Sept. April-Sept. April-Sept. April-Sept. April-Sept.	150 120 134 110 112 124 150
Silvies nr. Burns	April-Sept.	161

These forecasts assume normal precipitation and temperature will occur from now to the end of the forecast period.

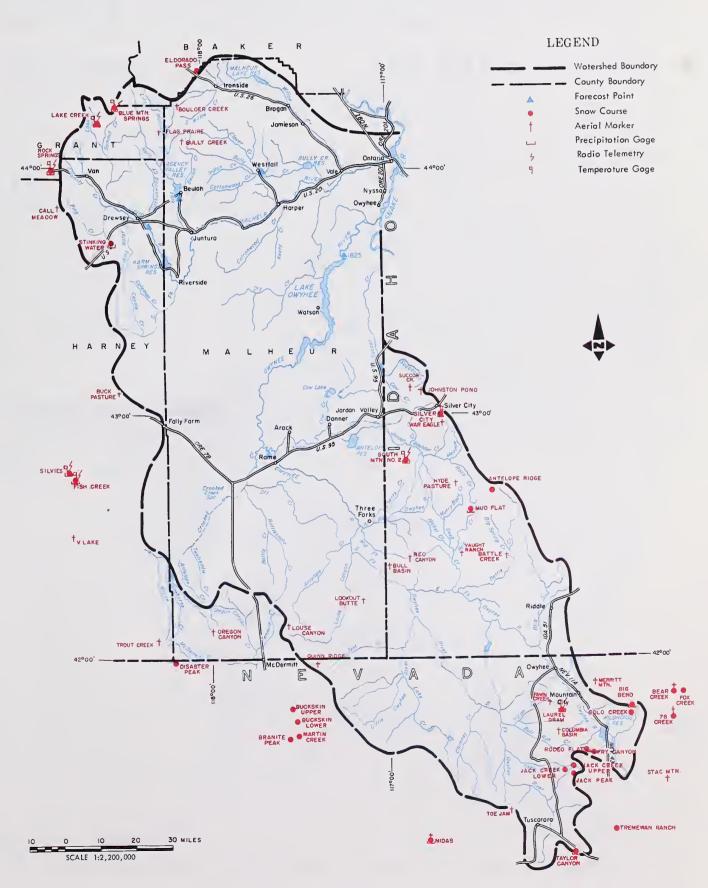
The forecasts in this bulletin are a result of a coordinated activity between the Soil Conservation Service and the National Weather Service as an effort to provide the best possible service to the water user.

WATER SUPPLY OUTLOOK

OWYHEE, MALHEUR WATERSHEDS OREGON

GENERAL OUTLOOK

Water supplies are forecast to be much above average for Malheur County. The snowpack is excellent. It is 150 to 160% of average on both the Malheur and Owyhee drainages. Although valley precipitation was 70% of normal during January, it is 175% for the November-January period. Reservoir storage is above average and streamflow for the spring and summer is forecast to be much above average.



STREAMFLOW FORECASTS		THIS YEAR			PAST RECORD		
	FORE	CAST	FORECAST	THOUSAND A	CRE FEET		
BASIN, STREAM and/or FORECAST POINT	Thousand Acre Feet	Percent of Average	PERIOD	Last Year	Average C		
Bully Creek at Warmsprings Malheur near Drewsey Malheur, North Fork at Beulah Owyhee Reservoir net Inflow Owyhee at Rome Succor Creek near Jordan Valley	27 182 123 134 107 865 588 596 28	215 170 169 163 160 150 150 150	MarMay FebJuly AprSept. FebJuly AprSept. FebJuly AprSept. FebJuly FebJuly		12.6b 107 73 82 67 578 392 596 b 15.4b		

FORECAST DATE of LOW FLOW VALUES

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

TOREGRATE DATE OF LOW	KEZEKANIK ZINKAPE (1	nousanu	AU. FL.	END OF	MONTH			
FORECAST POINT	Low Flow Stream Will Average Date Stream Will of Low Flow		RESERVOIR	Usable	Usable Storage			
	Second/Ft.	Recede to Low Flow Value	Value	KESEKVOIK	Capacity	This Year	Last Year	Average C
Owyhee near Rome	2000 1000 500	May 21 June 11 July 2	May 14 May 28 June 11	Beulah Reservoir Bully Creek Owyhee Warmsprings	60.0 30.0 715.0 191.0	39.6 19.4 421.0 119.7	21.3 14.9 525.3 137.0	27.9 14.9 485.1 95.2

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

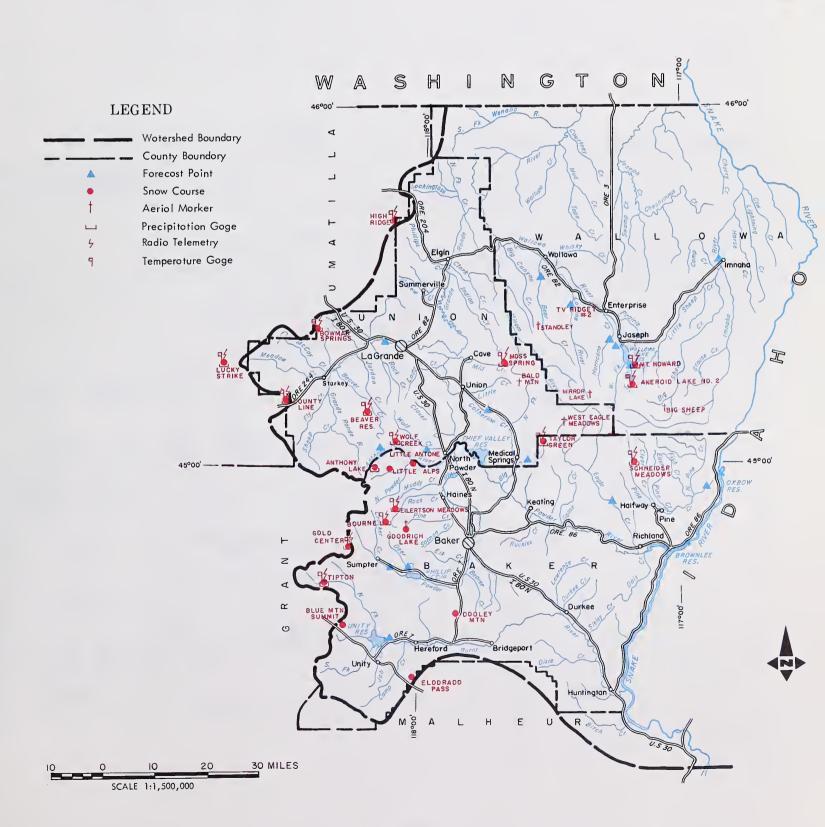
RIVER BASIN and/or	Number of Courses	THIS YEAR'S SNOW WATER AS PERCENT OF			
SUB-WATERSHED	Averaged	Last Year	Average c		
Jordan Creek Malheur River Owyhee River Bully Creek	1 4 6 1	365 239 373 258	159 152 162 158		

⁽a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

WATER SUPPLY OUTLOOK BURNT, POWDER, PINE, GRANDE RONDE, IMNAHA WATERSHEDS **OREGON**

GENERAL OUTLOOK

Water supplies should be very good for all users next summer. The snowpack is excellent. It is near 120% in the Wallowas and ranges upward to 178% on the Grande Ronde above LaGrande. Valley precipitation was near 120% during January and has been above average since November 1. Reservoir storage is near average. Streamflow is expected to be near average on some streams on the north side of the Wallowas and above average elsewhere.



STREAMFLOW FORECASTS	THIS YEAR			PAST RECORD		
	FORECAST		FORECAST	THOUSAND ACRE FEET		
BASIN, STREAM and/or FORECAST POINT	Thousand Acre Feet	Percent of Average	PERIOD	Last Year	Average C	
Anthony Creek blw. North Fork nr. North Powder Bear near Wallowa Big Creek blw. Burn Creek nr. Medical Spring Burnt near Hereford Catherine near Union Deer Creek abv. Phillips Res. nr. Sumpter Eagle Creek abv. Skull Creek Grande Ronde at La Grande Hurricane near Joseph Imnaha at Imnaha Lostine near Lostine Pine Creek nr. Oxbow Powder near Sumpter Wallowa, East Fork near Joseph Wallowa at Joseph Wolf Creek Res. net Inflow	21 78 17 85 63 79 27 207 224 239 193 47 381 125 250 67 71 13.8 12.5 75 18.1	120 120 136 170 173 125 148 122 120 120 120 102 125 101 105 118 122 108 109 109 137	FebJuly AprSept. FebJuly FebJuly AprSept. AprSept. FebJuly AprSept. MarSept. AprSept. FebJuly AprJuly AprSept. AprSept. AprSept. FebSept. AprSept. AprJuly AprSept. AprSept. AprSept. AprSept.		17.3 65 12.3 50 36 64 18.3b 169 184 199 161 46 305 123 238 b 57 58 12.8 11.5 69 13.2b	

RESERVOIR STORAGE ()	housand	Ac. Ft.)	END OF	MONTH	
RESERVOIR	Usable	Usable Storage			
RESERVOIR	Capacity	This Year	Last Year	Average ^C	
Phillips Lake Thief Valley Unity Wallowa Lake Wolf Creek	73.5 17.4 25.2 37.5 10.4	47.0α 17.7 15.2 22.5 3.1	17.7 19.0 22.7 5.4	43.7b 15.5b 12.5 21.4	

SUMMARY of SNOW MEASUREMENTS

RIVER BASIN and/or	Number of Courses		AR'S SNOW PERCENT OF
SUB-WATERSHED	Averaged	Last Year	Average C
Burnt River Grande Ronde River	4	251	146
above La Grande Powder River Wallowa, Imnaha,	3 5	683 222	178 127
Catherine Creek	5	244	119

EDDECAST DATE of LOW FLOW VALUES

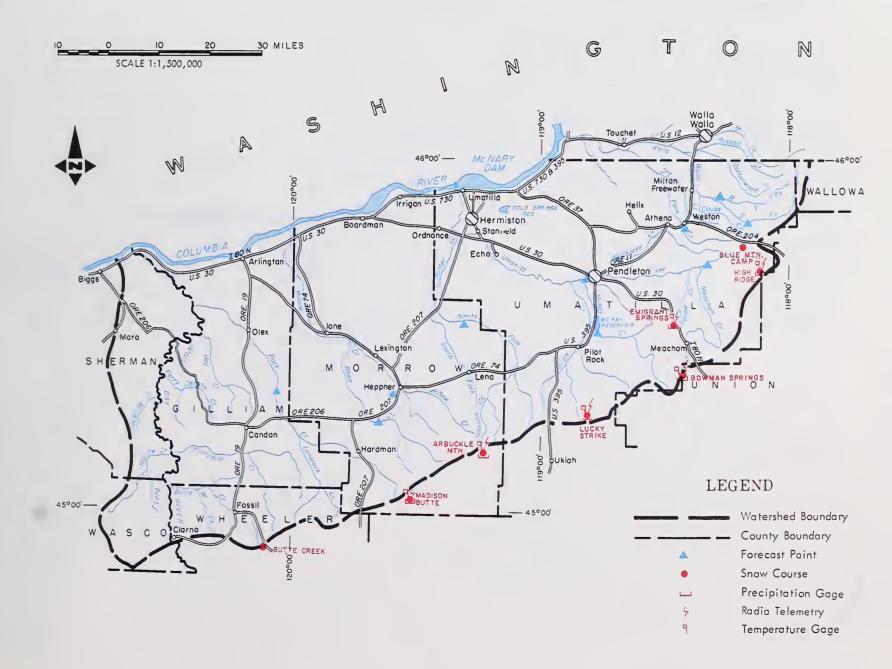
FURECAST DATE OF LOW	FLUW VAL	UES	
FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Eagle Creek above Skull Creek	225 160	Aug. 4 Aug. 16	July 25 Aug. 5 Avg.value
Catherine Cr.nr.Union	59 100 50	Aug. 1 July 18 Aug. 6	49 July 9 July 28
Powder near Sumpter	100 20	July 2 July 26	June 25 July 22
Deer Cr. abv. Phillips Res. nr. Sumpter	40 10	June 26 July 17	June 17 July 6

WATER SUPPLY OUTLOOK

UMATILLA, WALLA WALLA, WILLOW, ROCK, LOWER JOHN DAY WATERSHEDS OREGON

GENERAL OUTLOOK

Water supplies this spring and summer are expected to be very good. A heavy snowpack has accumulated in the Blue Mountains and is 140% of average on the Walla Walla and 210% of average on the Umatilla. Valley precipitation was only 80% during January but has been 110% of normal since November 1. Reservoir storage is near average for this time of year. Streamflow during the spring and summer is expected to be above average to much above average.



STREAMFLOW FORECASTS		THIS YEAR			PAST RECORD		
	FORE	FORECAST		THOUSAND ACRE FEET			
BASIN, STREAM and/or FORECAST POINT	Thousand Percent of Acre Feet Average		FORECAST PERIOD	Last Year	Average C		
Butter Creek nr. Pine City	12.9	120	MarJuly		10.7		
Couse Creek nr. Milton Freewater	7.7	112	FebJuly		7.2b		
McKay near Pilot Rock	30	133	AprSept.		22		
Pine Creek near Weston	6.6	117	FebJuly		5.7b		
Rhea Creek nr. Heppner	8.7	107	FebJuly		8.1		
Rock Creek abv. Cayuse Canyon nr. Condon	24	136	FebJuly		21 b		
Umatilla near Gibbon	133	134	MarSept.		99		
	105	134	AprSept.		78		
Umatilla at Pendleton	274	134	MarSept.		204		
	201	134	AprSept.		150		
Walla Walla, South Fork near Milton	92	112	MarSept.		82		
	78	113	AprSept.		69		
Willow Creek at Heppner	11.0	131	FebJuly		8.4		

FORECAST DATE of LOW FLOW VALUES

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

PURECASI DATE OF LUW	PLUW VAL	UE2		KESEKVUIK STURAGE (1	nousand	AC. PL.	END OF M	10NTH
FORECAST POINT	Low Flow Stream Will of Low F		Average Date	Date RESERVOIR		Usable Storage		
FORECAST POINT	Second/Ft.	Recede to Low Flow Value	of Low Flow Value	RESERVOIR	Capacity	This Year	Last Year	Average C
Umatilla at Pendleton So. Fk. Walla Walla near Milton	200	May 26 June 21 AugSept. Min.	May 17 June 9 Avg.value 105	Cold Springs McKay	50.0 73.8	28.4 49.0	25.0 28.9	28.5 34.4
t and the second		t	1	CUMMADY CONOW M	LAGUDERA	ENTO		

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

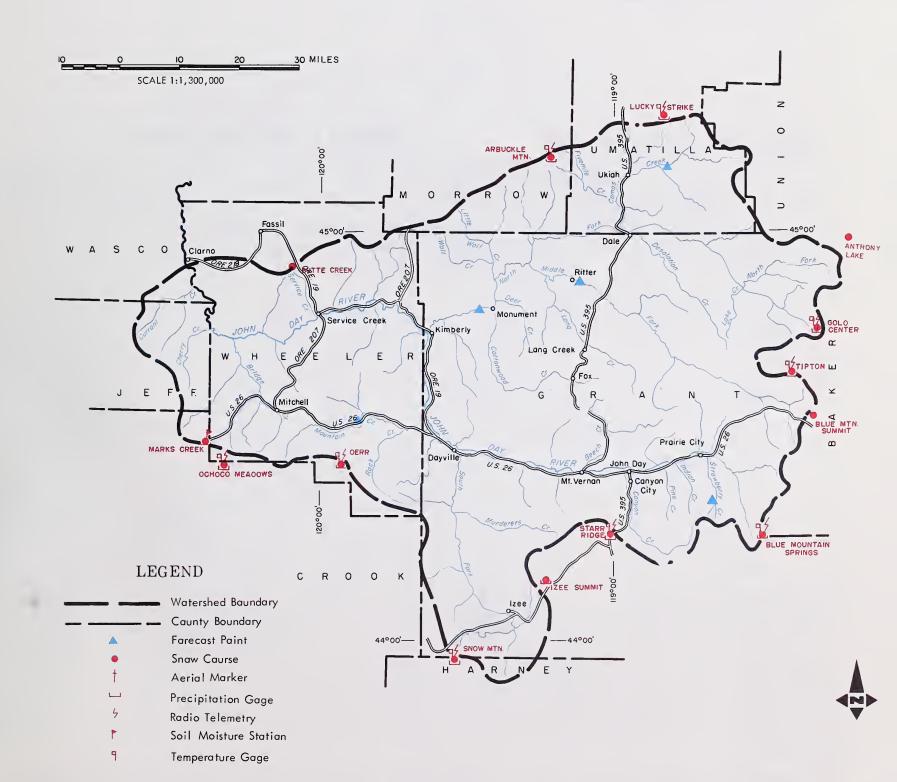
RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF Last Year Average C		
McKay Creek Umatilla River Walla Walla River	3 3 2	1,545 624 553	184 209 137	

WATER SUPPLY OUTLOOK

UPPER JOHN DAY WATERSHEDS OREGON

GENERAL OUTLOOK

Water supplies are expected to be excellent this coming spring and summer. The mountain snowpack is much above average. Valley precipitation has been 144% of average since November 1. Streamflow is expected to be much above average March through July.



STREAMFLOW FORECASTS		THIS YEA	R	PAST RECORD		
	FORE	CAST	FORECAST	THOUSAND ACRE FEET		
BASIN, STREAM and/or FORECAST POINT	Thousand Acre Feet	Percent of Average	PERIOD	Last Year	Average ^C	
Camas Creek near Ukiah John Day, Middle Fork at Ritter John Day, North Fork at Monument Mountain Creek nr. Mitchell Strawberry near Prairie City	56 45 170 145 755 645 6.9 8.9 9.3	134 134 128 128 118 119 151 120 117	MarJuly AprSept. MarJuly AprSept. MarJuly AprSept. FebJuly MarJuly AprSept.		42 34 133 108 639 541 4.6 7.3 7.7	

FORECAST DATE of LOW FLOW VALUES

SUMMARY of SNOW MEASUREMENTS (COMPARISON WITH PREVIOUS YEARS)

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value		RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	WATER AS	AR'S SNOW PERCENT OF
John Day at Service Creek	318		Avg.value 212	Johr	n Day, North Fork n Day abv. Dayville	7 5	339 296	147 155

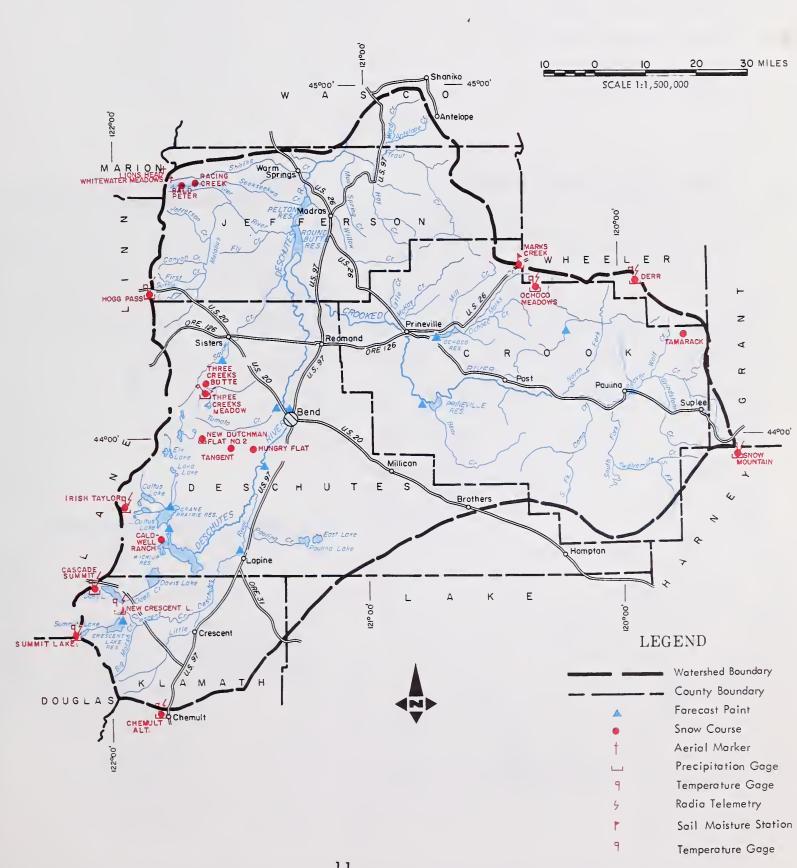
⁽a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

WATER SUPPLY OUTLOOK

UPPER DESCHUTES, CROOKED WATERSHEDS **OREGON**

GENERAL 0 U T L 0 0 K

Water supplies are expected to range from adequate to excellent for water users. The mountain snowpack is very good, in fact the best in the last 8-10 years. It is 140% of average on the Upper Deschutes and near 165% on the Crooked River. Valley precipitation has been 170% of normal since November 1. Reservoir storage is slightly below average except at Crescent Lake where it is 44% of normal. Streamflow is expected to be above average on most streams on the Deschutes and much above normal on the Crooked River and its tributaries.



STREAMFLOW FORECASTS	_	THIS YEA	R	PAST RECORD		
	FORE	CAST	FORECAST	THOUSAND ACRE FEET		
BASIN, STREAM and/or FORECAST POINT	Thousand Acre Feet	Percent of Average	PERIOD	Last Year	Average (
Beaver Creek near Paulina	72	185	FebJuly		39	
o D t t D com to total Incline	29	181	AprSept.		16.1	
Crane Prairie Reservoir total Inflow	153	129	AprSept.		120	
Crescent at Crescent Lake	20	100	MarJuly		20 22	
Constant Divers per Deinaville	22 297	100	AprSept.		161	
Crooked River nr. Prineville	150	184 168	FebJuly		90	
Charled B. No Ek blu Lookout China Paulina	22	155	AprSept. FebJuly		14.5	
Crooked R., No.Fk. blw. Lookout Cr.nr. Paulina Deschutes below Bend	Not foreca				14.5	
Deschutes at Benham Falls	531	110	AprJuly		483	
Descriutes at Bernam Paris	801	110	AprSept.		728	
Deschutes below Snow Creek	97	128	FebSept.		75	
Descriptes below Show creek	85	135	AprSept.		63	
Deschutes, Little near La Pine	162	158	FebJuly		102	
Descriptes, Erette hear La inic	117	158	AprJuly		74	
Ochoco Reservoir net Inflow	70	239	FebJuly		29	
ochoco Reservori nee in row	39	242	AprSept.		16	
Squaw near Sisters	64	132	AprSept.		49	
Tumalo near Bend	52	116	AprSept.		45	
	1					

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Crane Prairie net Inflow	551 322 Peak	Peak Oct. 31 June 1	
Crooked R. near Post	100	June 20	June 1
Deschutes at Bend	Not forec	ast this m	on th
Little Deschutes nr. La Pine	400 200	June 20 July 29	June 7 July 8
Squaw Cr. nr. Sisters	100	Sept. 27	Aug. 16
Tumalo Cr. nr. Bend	235 207 150 71	July 16 July 18 July 30 Sept. 20	June 23 June 25 July 5 Aug. 7

RESERVOIR STORAGE (Thousand Ac. Ft.)

KESEKANIK ZINKAPE (II	AG. PL.	END OF M	IONTH	
RESERVOIR	Usable	υ	sable Stora	ge
RESERVOIR	Capacity	This Year	Last Year	Average ^C
Crane Prairie Crescent Lake Ochoco Prineville Wickiup	55.3 86.9 47.5 153.0 200.0	32.1 26.8 28.6 93.1 136.8	29.4 22.0 29.6 97.9 132.5	44.9 61.4 26.0 101.1 156.4
IM WORZ of SNOW MI	FASIIRFM	FNTC		

SUMMARY OF SNOW MEASUREMENTS (COMPARISON WITH PREVIOUS YEARS)

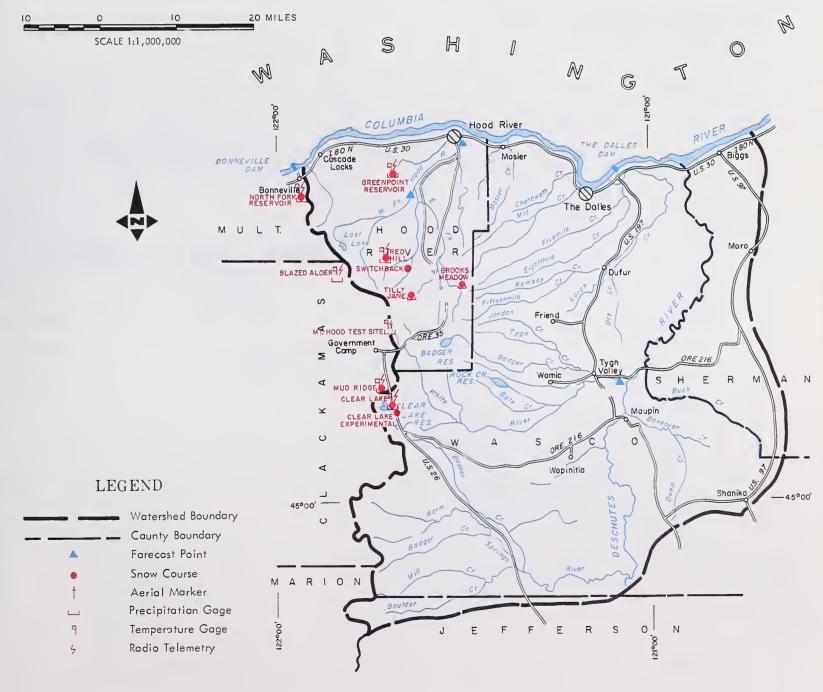
DIVER DASIN Number of THIS YEAR'S SNOW								
RIVER BASIN and/or	Number of Courses		PERCENT OF					
SUB-WATERSHED	Averaged	Last Year	Average C					
Crooked, Ochoco Deschutes abv. Wickiup Little Deschutes Tumalo & Squaw Crs.	3 3 4 3	319 360 619 444	162 142 139 158					

HOOD, MILE CREEKS, LOWER DESCHUTES WATERSHEDS

OREGON

GENERAL OUTLOOK

Water supplies are expected to be very good in Hood River and Wasco Counties this coming spring and summer. The snowpack on Mt. Hood is the best since the record year of 1974. It is 150% of average. Precipitation since November 1 has been 140% of normal. Good streamflows are expected this next spring and summer.



STREAMFLOW FORECASTS		THIS YEAR	PAST RECORD			
	FORE	CAST	FORECAST	THOUSAND ACRE FEET		
BASIN, STREAM and/or FORECAST POINT	Thousand Acre Feet	Percent of Average	PERIOD	Last Year	Average C	
Hood River at Tucker Bridge nr. Hood River Hood River, West Fork near Dee White below Tygh Valley	286 336 146 169 148 165	118 116 115 113 130 128	AprJuly AprSept. AprJuly AprSept. AprJuly AprJuly AprSept.		242 289 127 149 114 129	

FORECAST DATE of LOW FLOW VALUES

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

FORECAST POINT	Low Flow Value	Forecast Date Stream Will	Average Date of Low Flow	RESERVOIR	Usable		able Stor	age
TORECAST TOTAL	Second/Ft.	Recede to Low Flow Value	Value		Capacity	This Year	Last Year	Average ^C
Clear Branch Inflow	*46	July 15-3	**39	Clear Lake (Wasco)	11.9	1.5	1.6	3.9
*Average cfs forecast to flow for this two-week period.								
**Average cfs for period of record.								
White blw. Tygh Valley	200	July 10	July 3					
	170	Aug. 1	Avg.value					
				SUMMARY of SNOW ME	I Asiiremei) PTM		1 1
				(COMPARISON WITH PREVIOUS	YEARS)		UIC VE A	DIC CHOW
-				RIVER BASIN and/or SUB-WATERSHED	Number of Courses Average	s WAT		R'S SNOW ERCENT OF
				30BWATERSHED		Last	rear	Average
				Hood River Mile Creeks	5 -	9	51	146
				White River	3	1,0	63	153

⁽a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

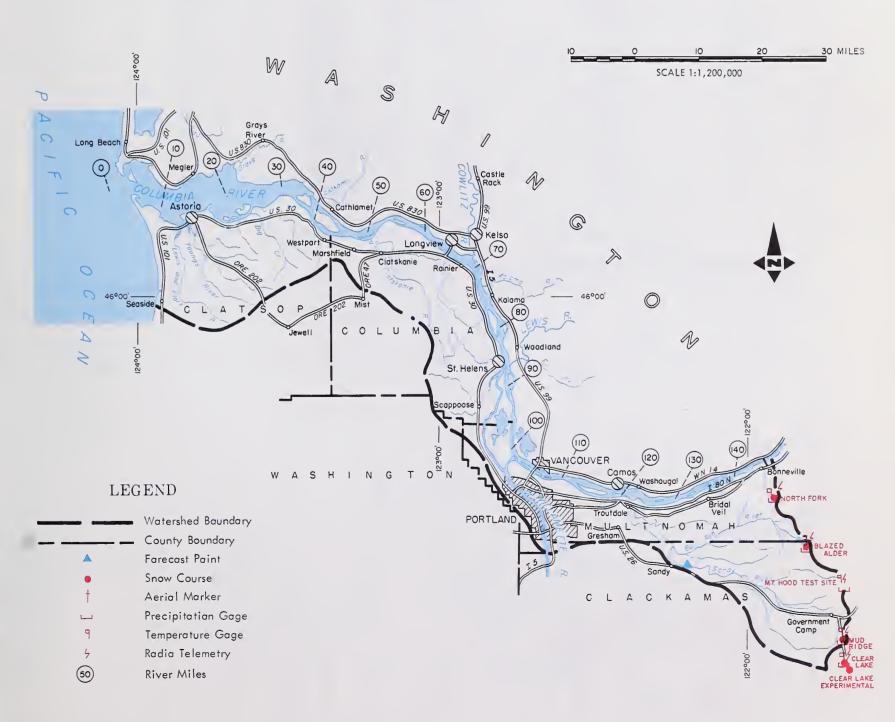
WATER SUPPLY OUTLOOK

LOWER COLUMBIA WATERSHEDS

OREGON

GENERAL OUTLOOK

Lower Columbia water supplies should be near normal to slightly above this next summer. January storms improved the snowpack conditions from last month's 80 to 90% on the mainstem of the Columbia in Canada. It currently ranges from 95 to 105%. The Montana portion of the basin is 90 to 105% of average. The Upper Snake has an excellent snowpack at 134% of normal. The Washington and southern Idaho snow cover is normal to above normal. Volumes of 109 to 108% are forecast for the Columbia River at The Dalles for the April-July and April-September periods.



SUMMARY OF SNOW MEASUREMENTS (COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or	Number of Courses		AR'S SNOW PERCENT OF
SUB-WATERSHED	Averaged	Last Year	Average C
Sandy River	2	1,014	154

STREAMFLOW FORECASTS		THIS YEA	PAST RECORD		
	FORECAST FORECAST		THOUSAND ACRE FE		
BASIN, STREAM and/or FORECAST POINT	Thousand Acre_Feet	Percent of Average	PERIOD	Last Year	Average ^C
Columbia at The Dalles	96,900 112,000	109 108	April-July April-Sept.		88,520 103,500
Sandy River near Marmot	345 403	105 105	April-July April-Sept.		329 384

HISTORICAL DATA (Columbia River at The Dalles)

		STREAMFLOW ^d (1,000 A F.))	REGULATED PEAK	
YE AR	APR - SEPT.	APR — JUNE	MAY - JUNE	(1,000 cfs)	DATE
1963 1964 1965 1966 1967 1968 1969 1970 1971 1972 1973 1974 1975 1976	87,860 110,422 114,222 87,386 109,319 89,102 112,377 88,243 126,898 135,500 65,549 139,501 108,906 122,771 54,108	58,499 73,512 80,098 58,250 74,378 55,593 85,742 62,993 91,781 97,041 43,765 99,035 73,018 79,084 35,505	47,812 63,670 62,467 45,962 66,452 47,994 63,899 55,227 76,453 81,451 36,565 78,946 62,861 62,554 28,394	437 662 520 396 622 404 515 425 557 619 221 588 422 418 213	June 18 June 18 June 9 June 12 June 10 June 13 May 15 May 28 May 13 June 20 December 5 June 20 May 17 May 14 January 25
1963-77 Avg.	103,478	71,220	58,714	468	

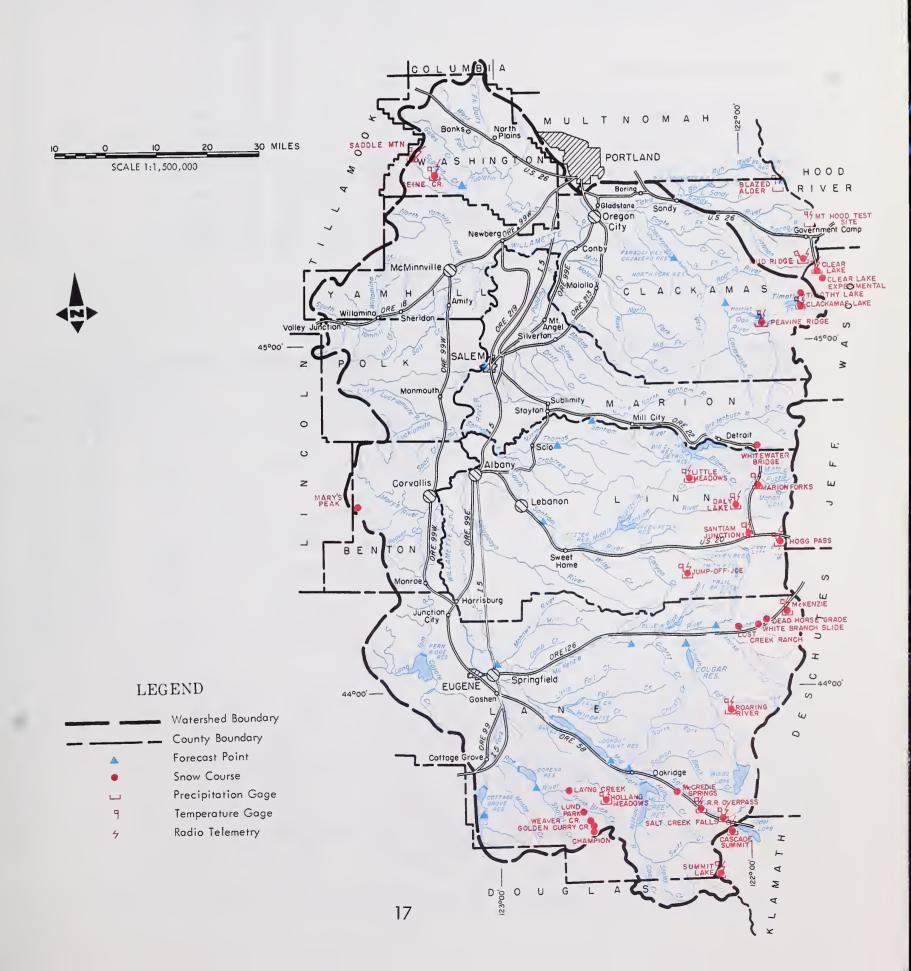
LOWER COLUMBIA RIVER FLOOD STAGES (with 9.5' tide at Astoria)

				DRAINA	GE DISTRICT PUM	PHOUSE		
VANCOUVER GAGE	FLOW AT	SANDY	SAUVIE ISL.	SCAPPOOSE	DEER ISL.	RAINIER	BEAVER	WOODSON
(Weather Bu)	THE DALLES (1,000 c.fs)				RIVER MILES			
(Wediner Bu)	(1,000 6.1 \$)	118.9	96.0	91.0	77. 0	62.0	52.0	47. 0
35 (1894)	1210	41.2	34.2	33.3	28.5	21.9	17.5	15.5
34	1160	40.5	33.5	32.5	27.7	21.2	17.0	15.0
33	1100	39.6	32.4	31.4	26.7	20.2	16.1	14.3
32 (1972)	1050	38.9	31.5	30.5	25.7	19.5	15.4	13.7
31 (1948)	1000	38.0	30.7	29.5	25.1	18.8	14.7	13.0
30	943	36.6	29.5	28.5	24.3	18.1	14.0	12.4
29	897	35.5	28.5	27.7	23.7	17.5	13.4	11.8
28	853	34.3	27.5	26.7	22.8	17.0	13.0	11.4
27 (1956)	811	33.0	26.5	25.6	21.8	16.2	12.5	11.0
26 (1950)	771	32.1	25.5	24.6	20.9	15.5	12.2	10.7
25	733	30.7	24.2	23.2	19.7	14.6	11.7	10.3
24	697	29.7	23.0	22.2	19.0	14.1	11.4	10.2
23	662	29.0	22.3	21.4	18.4	13.6	11.2	10.0
22	628	28.1	21.4	20.3	17.2	13.0	10.9	9.7
21	595	27.2	20.7	19.5	16.4	12.6	10.6	9.6
20 (1954)	564	26.2	19.8	18.6	1.5.5	10 1	10.2	9.4
19	534	25.5	19.2	18.0	15.5	12.1 11.8	10.2	9.4
18	501	24.4	18.3	17.2	15.0		9.8	9.1
17	479	23.4	17.4	16.4	14.3	11.4 11.0	9.6	8.9
16	452	22.4	16.5	15.5	13.7 13.0	10.5	9.0	8.7
10	1	22.7	10.5	10.0	13.0	10.5	7.5	0.7

OREGON

GENERAL OUTLOOK

Water supplies are expected to be above average in the Willamette Valley during the coming spring and summer. The snowpack in the Cascades is the best for the past 8 years. It is 125 to 140% of average. Precipitation since November 1 has been 127% of average. Reservoirs are being held at low levels as usual for this time of year in anticipation of the snow melt runoff which is expected to be very good.



STREAMFLOW FORECASTS	THIS YEAR			PAST RECORD	
	FORE	CAST	FORECAST	THOUSAND ACRE FEET	
BASIN, STREAM and/or FORECAST POINT	Thousand Acre Feet	Percent of Average	PERIOD	Last Year	Average (
Clackamas at Estacada	767	115	AprJuly		667
Clackamas above Three Lynx	900 582	115 115	AprSept. AprJuly		782 506
McKenzie at McKenzie Bridge	693 529	115	AprSept. AprJuly		603 452
McKenzie near Vida	700 1,201	117	AprSept. AprJuly		598 1,024
McKenzie, So. Fork near Rainbow	1,453	115 120	AprSept. AprJuly		1,259 207
Mohawk River near Springfield	279 221	119 133	AprSept. FebJuly		234 166
Oak Grove Fork above Power Intake	157 196	115	AprJuly AprSept.		132
Row near Dorena	103	105	AprJuly AprSept.		98
Santiam, North at Mehama	860 960	114	AprJuly AprSept.		752 860
Santiam, South at Waterloo	640 690	117	AprJuly		547 590
Scoggins Creek nr. Gaston	48	110	AprSept. FebJuly		44
Thomas Creek near Scio Willamette, Coast Fork nr. London Willamette, Mid. Fk.blw. N.Fk. nr. Oakridge	176 32 765	110 117 114	FebJuly AprJuly AprJuly		160 27 678
Willamette, No. Fk. of Mid.Fk. near Oakridge	869 229	112	AprSept. AprJuly		776 188
	254	121	AprSept.		209
Willamette at Salem					

SUMMARY of SNOW MEASUREMENTS

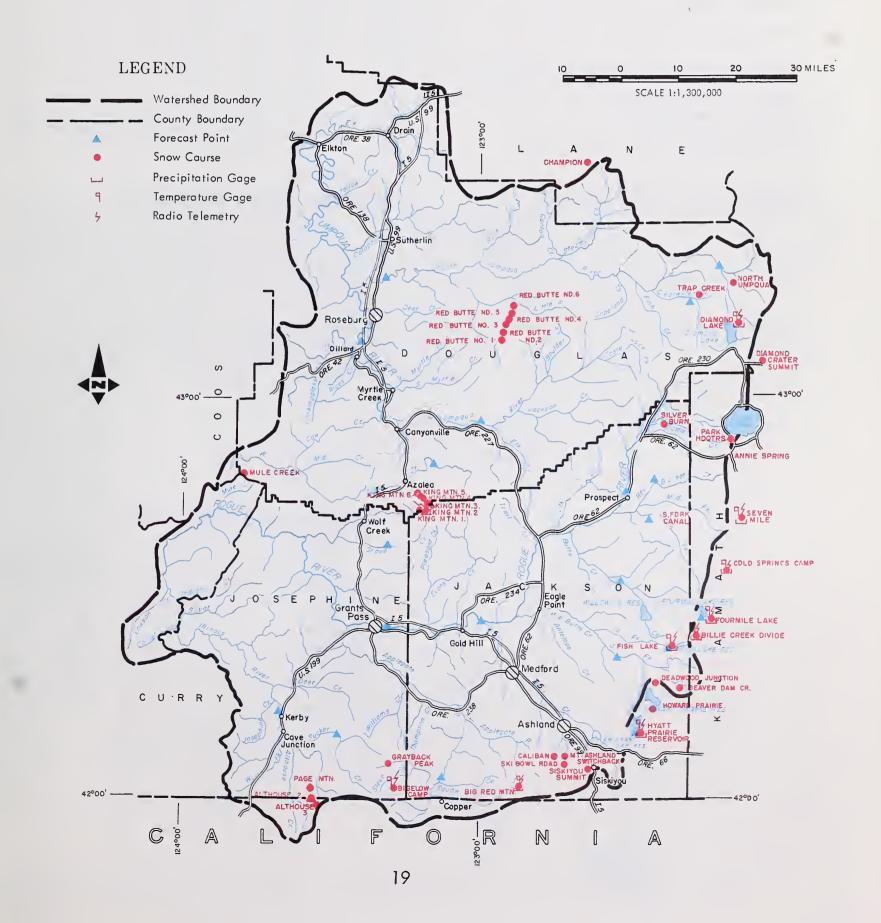
COMPARISON WITH PREVIOUS YEARS)			RESERVOIR STORAGE (1	housand	sand Ac. Ft.) END OF MONTH				
RIVER BASIN and/or	Number of Courses	THIS YEAR'S SNOW WATER AS PERCENT OF		RESERVOIR	Usable		sable Stora	ge	
SUB-WATERSHED	Averaged Last Year Average C		Capacity	This Year	Last Year	Average C			
Clackamas River McKenzie River Row River Santiam River Willamette, Mid. Fk.	2 3 2 4 4	762 1,390 1,270 622	139 132 125 140 134	Blue River Cottage Grove Cougar Detroit Dorena Fall Creek Fern Ridge Foster Green Peter Hills Creek Lookout Point Timothy Lake Henry Hagg Lake	85.6* 30.0* 155.2* 299.9* 70.5* 115.0* 94.2* 30.0* 270.0* 337.2* 61.7 53.0	11.6 31.0 8.6 13.5 19.8 1.4 55.2 22.3	5.6 2.6 5.4 22.2 5.7 15.9 0.8 23.7 12.3 7.6 48.6 34.9	15.1% 3.1 26.1 59.2 13.6 15.0% 22.9 1.2% 51.4% 34.7 59.7 53.7	

⁽a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

WATER SUPPLY OUTLOOK ROGUE, UMPQUA, WATERSHEDS OREGON

GENERAL OUTLOOK

Water supplies in the Rogue and Umpqua basins are expected to be near average to much above average. The snowpack in the Cascades is near 140% of average and is the best since 1974. The Siskiyous have a snow cover near normal for this time of year. Valley precipitation has been 135% of normal since November 1. Reservoir storage is near average except at Fish Lake and Fourmile which are below normal for February 1. Streamflow this next spring and summer is expected to be near average in the Siskiyous and above average elsewhere.



STREAMFLOW FORECASTS	THIS YEAR			PAST RECORD	
	FORE	CAST	FORECAST	THOUSAND A	CRE FEET
BASIN, STREAM and/or FORECAST POINT	Thousand Acre Feet	Percent of Average	PERIOD	Last Year	Average ^C
Applegate near Copper	137	107	AprSept.		129
Clearwater above Trap Creek	75	105	AprSept.		71
Cow Creek nr. Azalea	48	111	FebJuly		43
Fourmile Lake net Inflow	6.6	169	AprSept.		3.9
Grave Creek at Pease Bridge nr. Placer	23	110	FebJuly		21
Hyatt Reservoir net Inflow	5.9	120	AprJuly		4.9
Illinois River near Kerby	176	100	AprJuly		176
	183	100	AprSept.		183
Little Butte, N.Fk. at Fish Lake nr. Lake Cr.	18.8	134	AprSept.		14.0
Little Butte, S.Fk. near Lake Creek	44	130	AprSept.		34
Red Blanket Creek nr. Prospect	42	118	AprJuly		35
Rogue above Prospect	296	115	AprJuly		257
Rogue, South Fork near Prospect	70	113	AprJuly		62
	83	112	AprSept.		74 756
Rogue at Raygold near Central Point	947	125	AprJuly		756
	1,135	124	AprSept.		919
Rogue at Grants Pass	960	125	AprJuly		759 908
O L O L3 Little Combanh on Halland	1,129	124 119	AprSept.		58
Sucker Cr.blw. Little Grayback nr. Holland	69	106	AprJuly AprSept.		170
Umpqua, No.blw. Lemolo Lake, nr. Toketee Falls	180	1115	AprJuly		768
Umpqua, No. at Winchester	478	126	AprJuly		380
Umpqua, So. near Brockway	216	118	AprJuly		183
Umpqua, So. at Tiller So.Fk. Big Butte Cr.nr. Butte Falls	45	122	AprJuly		37
So. I. Dig bucke of the bucker alls		122	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		

FORECAST DATE of LOW FLOW VALUES

FURECASI DATE OF LUW	FLUW VAL	0F2	
FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Cow Creek nr. Azalea	20 10	July 9 Aug. 22	July 4 Fug. 19
Little Butte Creek, South Fork	100	June 12	May 15
South Umpqua nr. Brockway	90	Sept. 7	July 30
South Umpqua at Tiller	140 90 60	July 22 Aug. 14 Sept. 18	July 10 July 30 Aug. 27

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

DECEDIOL	Usable	U	sable Stora	ge
RESERVOIR	Capacity	This Year	Last Year	Average ^C
Applegate Emigrant Lake Fish Lake Fourmile Lake Howard Prairie Hyatt Prairie Lost Creek	75.2 39.0 8.0 16.1 60.0 16.1 315.0	10.7 25.1 3.8 5.3 45.4 12.6 166.5	24.4 4.0 4.6 42.2 10.8 158.5	24.4 5.9 9.9b 44.5 11.8

SUMMARY of SNOW MEASUREMENTS

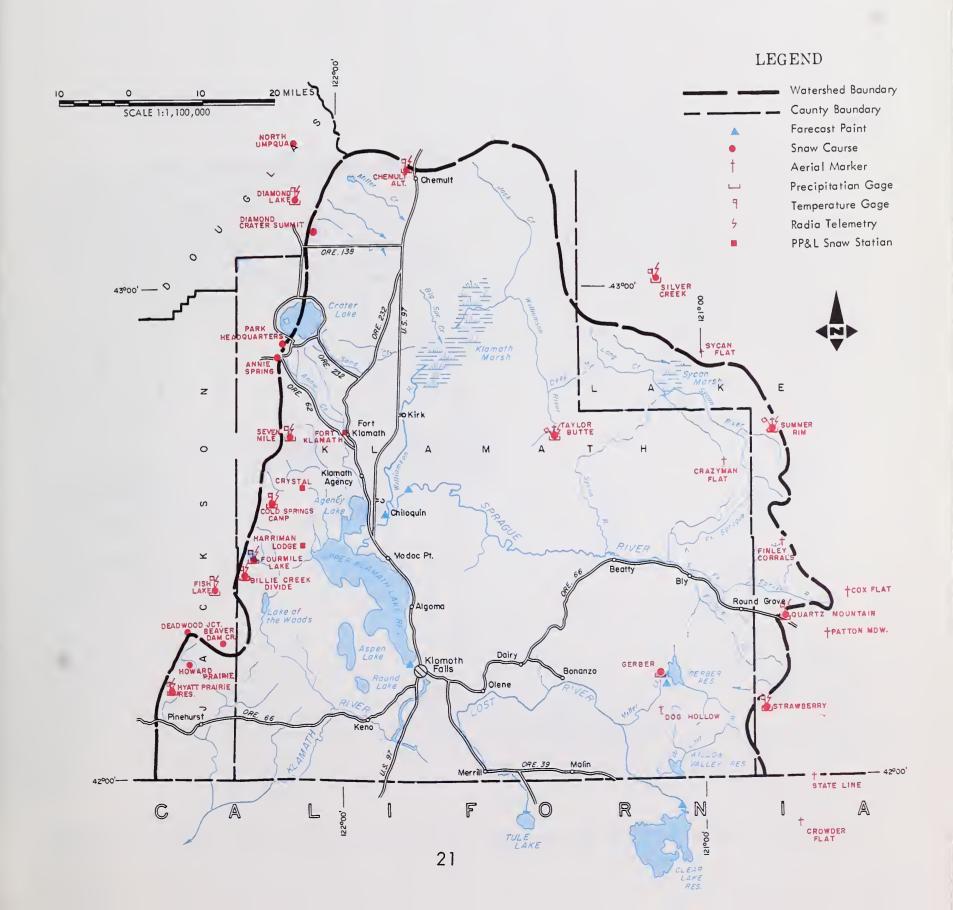
COMPARISON WITH PREVIOUS YEARS)

(COMPARISON WITH PREVIOUS YEARS)								
RIVER BASIN	Number of		AR'S SNOW					
and/or	Courses		PERCENT OF					
SUB-WATERSHED	Averaged	Last Year	Average C					
Applegate Bear Creek Butte Creek Illinois River North Umpqua Rogue River Mt. Ashland	2	399	107					
	2	306	114					
	2	546	117					
	3	564	94					
	3	1,542	133					
	4	587	137					
	4	326	125					

WATER SUPPLY OUTLOOK KLAMATH WATERSHEDS OREGON

GENERAL OUTLOOK

Klamath County water supplies are expected to be much above average this next spring and summer. The snowpack is 114% of normal on the Upper Sprague River and ranges on up to 178% on the Williamson. Valley precipitation since November 1 has been 170% of normal. Reservoir storage is below average but with the heavy streamflows expected is not a problem for water users.



STREAMFLOW FORECASTS	THIS YEAR		PAST RECORD		
	FORECAST		FORECAST	THOUSAND A	CRE FEET
BASIN, STREAM and/or FORECAST POINT	Thousand Acre Feet	Percent of Average	PERIOD	Last Year	Average ^C
Clear Lake Reservoir Inflow Gerber Reservoir Inflow Sprague near Chiloquin Upper Klamath Lake net Inflow Williamson below Sprague River	138 60 550 387 1,252 806 915 613	150 146 160 160 139 150 154 150	FebJuly FebSept. AprSept. FebSept. AprSept. AprSept. FebSept. AprSept.		92 41 344 242 877 526 594 409

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable	Usable Storage			
RESERVOIR	Capacity	This Year	Last Year	Average ^C	
Clear Lake Gerber Upper Klamath Lake	440.2 94.0 584.0	185.9 48.9 377.2	151.4 28.2 356.9	235.2 50.6 372.6	

SUMMARY of SNOW MEASUREMENTS (COMPARISON WITH PREVIOUS YEARS)

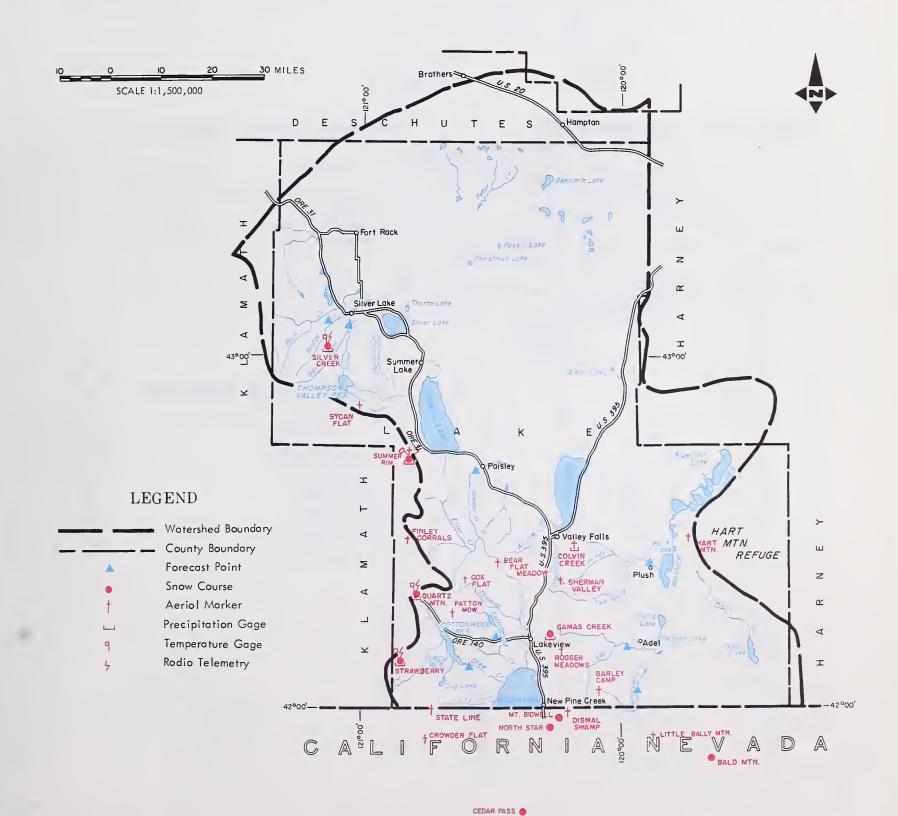
(COMPARISON WITH PREVIOUS TEARS)								
RIVER BASIN	Number of	WATER AS	AR'S SNOW					
and/or	Courses		PERCENT OF					
SUB-WATERSHED	Averaged	Last Year	Average C					
Lost River	4	448	120					
Sprague River	3	376	114					
Upper Klamath	5	647	130					
Williamson River	3	1,383	178					

WATER SUPPLY OUTLOOK

LAKE COUNTY, GOOSE LAKE WATERSHEDS OREGON

GENERAL OUTLOOK

Lake County water users can expect excellent water supplies this next spring and summer. The snowpack is near average on Drews Creek but much above average elsewhere. Valley precipitation at 180% of average has been exceptionally heavy since November 1. Storage in Cottonwood and Drews is much above normal for this time of year. Streamflows are expected to be 135% to 200% during the March-July period.



ADIN MTN.

STREAMFLOW FORECASTS	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST	THOUSAND A	CRE FEET
BASIN, STREAM and/or FORECAST POINT	Thousand Acre Feet	Percent of Average	PERIOD	Last Year	Average ^C
Chewaucan near Paisley Cottonwood Creek nr. Lakeview Deep above Adel Drews Reservoir net Inflow Honey Creek near Plush Silver Creek near Silver Lake Twentymile Cr. near Adel Bridge Cr.nr. Spahr Ranch nr. Silver Lake	135 18.9 116 55 36.0 28 51 4.8	153 163 145 134 175 199 194 142	MarJuly MarJuly MarJuly MarJuly MarJuly AprJuly AprJuly		88 11.6 80 41 21 14.1 26 3.4

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Deep Cr. above Adel	100	July 5	June 21
Honey Cr. nr. Plush	100 50	June 15 June 25	May 15 May 30
Twentymile near Adel	50 10	June 20 July 15	June 2 July 3
	3		

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

KEZEKANIK ZINKAPE (Thousanu	AC. PL.	END OF	MONTH
RESERVOIR	Usable	U	sable Stora	ge
RESERVOIR	Capacity	This Year	Last Year	Average ^C
Cottonwood Drews Thompson Valley	8.7 63.0 19.5	8.0 48.5 N/R	2.1 30.5 3.5	2.8b 39.3 14.0b

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

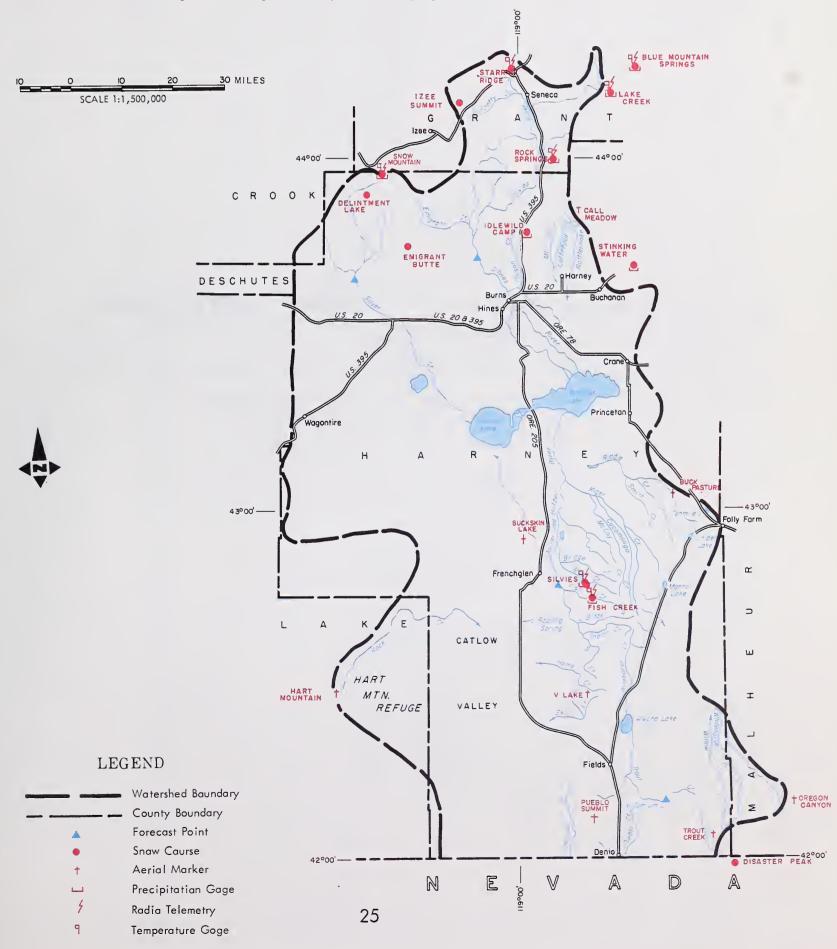
(COMPARISON WITH PREVIOUS YE	ARS)						
RIVER BASIN and/or	Number of Courses	THIS YEAR'S SNOW WATER AS PERCENT OF					
SUB-WATERSHED	Averaged	Last Year	Average C				
Chewaucan River Deep Creek Drew Creek Honey Creek Silver Creek Twentymile Creek	3 4 3 3 3 3	376 262 376 199 894 258	114 134 87 129 134 152				

⁽a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

WATER SUPPLY OUTLOOK HARNEY BASIN WATERSHEDS **OREGON**

GENERAL 0 U T L 0 0 K

Harney County water users can expect excellent water supplies this next spring and summer. The snowpack is 145 to 165% of average in the north half of the county and 175 to 265% in the south. Valley precipitation has been 150% of normal since November 1. Streamflows are expected to be much above average during the April-July period.



STREAMFLOW FORECASTS		THIS YEA	PAST RECORD			
		CAST	FORECAST	THOUSAND ACRE FEET		
BASIN, STREAM and/or FORECAST POINT	Thousand Acre Feet	Percent of Average	PERIOD	Last Year	Average C	
Donner und Blitzen near Frenchglen Silver near Riley Silvies River near Burns Trout Creek near Denio	80 74 28 168 125 14.0	136 130 179 174 161 150	MarJuly AprSept. AprJuly MarJuly AprSept. MarJuly		59 57 15.8 96 77 9.3	

FORECAST DATE of LOW FLOW VALUES

SUMMARY of SNOW MEASUREMENTS

I UNLUASI DAIL OI LOW	ILUM TAL	ULS		(COMPARISON WITH PREVIOUS YEARS)							
FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value	RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YE WATER AS Last Year	AR'S SNOW PERCENT OF Average C				
		Flow value		SOB WITERSHED		Last Tear	Average				
Silvies nr. Burns	400 200 100 50	May 24 June 15 July 3 July 14	May 5 May 21 June 9 June 23	Donner und Blitzen R. Silver Creek Silvies River Trout Creek	3 2 4 2	229 286 327 -	174 145 163 263				
Donner und Blitzen	200 100	July 2 July 13	June 15 July 5								
Malheur Lake at Break	GAGE HEIGHT	SURFACE ACRES	AVG. SURFACE ACRES								
near Voltage July 1 Aug. 1	93.8 93.3	48,800 40,200	40,000 33,000								

SNOW	Т	HIS YEAR		PAST R	ECORD	SNOW	T	HIS YEA	R	PAST R	
DRAINAGE BASIN and/or SNOW COURSE	Date of Survey	Snow Depth (In.)	Woter Cont. (In.)	Woter (Inch	nes)	DRAINAGE BASIN ond/or SNOW COURSE	Date of Survey	Snow Depth (In.)	Water Cant. (In.)	Woter C (Incl Last Yr.	nes)
OWYHEE MALHEUR WATERSHEDS AREA 1 Antelope Ridge (Ida.) Battle Creek (Nev.) Big Bend (Nev.) Big Bend (Nev.) Blue Mountain Springs Blue Mtn. Spgs. Plw. (S) Blue Mtn. Spgs. Plw. (S) Blue Mtn. Spgs. Plw. (M) Boulder Creek * Buck Pasture * Buckskin, Lower (Nev.)* Bull Basin (Ida.) * Bully Creek * Columbia Basin (Nev.)* Disaster Peak (Nev.) Fish Creek * Fish Creek (Nev.) Fish Creek Pillow (T) Fish Creek Pillow (T) Fish Creek Pillow (S) Fish Creek Pillow (M) Flag Prairie * Fox Creek (Nev.) Fry Canyon (Nev.) Gold Creek (Nev.) Government Corrals Granite Peak (Nev.) Jack Creek, Upper (Nev.) Jack Creek, Upper (Nev.) Jack Creek R.S. Lake Creek R.S. Lake Creek R.S. Lake Creek R.S. Lake Creek R.S. Plw. (T) Lake Creek R.S. Plw. (S) Lake Creek R.S. Plw. (S) Lake Creek R.S. Plw. (M) Laurel Draw (Nev.) Lookout Butte * Louse Canyon * Martin Creek (Nev.) * Merritt Mountain (Nev.) * Midas (Nev.) * Merritt Mountain (Nev.) * Midas (Nev.) * Merritt Mountain (Nev.) * Midas (Nev.) * Midas (Nev.) * Silver City (Ida.) Silvies Pillow (M) South Mountain #2 (Ida.) Silvies Pillow (S) Silvies Pillow (S) Silvies Pillow (S) Silvies Pillow (M) South Mountain #2 (Ida.) South Mountain #2 (Ida.) South Mountain #2 (Ida.) Silvies Pillow (M) South Mountain (Nev.) * Tremut Creek (Ida.) * Taylor Canyon (Nev.) To Jam (Nev.) T	1/27 1/27 1/27 1/27 1/30 2/1 1/29 1/29 1/29 1/29 1/29 1/29 1/29	9 58 37 61 61 17 26 4 15 32 50 21	11.1 18.5 17.5 17.2 14.6 16.0 6.7 5.6 7.8 6.1 9.0 3.8 10.9	0.1 5.3 2.2 7.8 6.2 7.0 3.9 0.8 1.8 1.8 1.8 1.8 1.8 1.8 1.8 1	2.8 13.8b 6.1 12.1 11.8b 9.0b 1.4 1.3 2.0b 2.5b 6.8b 3.2 3.9 5.2 4.0 10.4b 4.3 4.2 3.9 5.2 4.0 10.4b 4.3 4.2 6.2b 0.2 3.3 7.2b 4.4b 2.3b 3.7 1.5 5.8 4.4 9.9 9.8b 9.9 3.7b 3.1 3.8 4.0 7.2b 4.1 7.8 9.8b		1/27 N/R 1/27 1/28 1/29 1/28 N/R 1/29 1/29 1/27 1/27 1/27 1/27 1/27 1/27 1/27 1/27	81 85 -70 82 47 44 67 45 64 -67 -29 -30 -35 43 -42 -96 43 336 38 -40 -75 -72 -72 -72 -72 -72 -72 -74 -75 -75 -76 -76 -77 -77 -77 -77 -77 -77	26.4 24.8 22.2 22.8 23.8 13.4 10.2 22.1 11.6 17.0 19.1 17.0 10.3 10.9 9.9 4.8 10.5 35.3 11.4 8.0 10.6 11.6 11.9 11.	15.6 16.2 7.9 7.2 4.0 1.0 10.8 5.2 6.5 6.9 7.8 0.2 0.5 0.1 4.1 2.7 1.8 1.6 2.3 3.9 6.2 0.5 13.0 1.7 1.8 1.7 1.8 1.7 1.8 1.7 1.8 1.7 1.8 1.7 1.8 1.7 1.8 1.7 1.8 1.8 1.7 1.8 1.7 1.8 1.8 1.7 1.8 1.8 1.7 1.8 1.8 1.8 1.8 1.8 1.8 1.8 1.8	22.9 18.2 16.1½ 9.1 18.2 6.9 11.6 3.6 3.2 9.7 27.2½ 9.2 8.6¼ 15.8 19.8¼ 12.5½ 10.8⅓ 12.8⅓ 12.8%

BASIC DATA SUPPLEMENT 1 FEBRUARY 1, 1982

0W
AINAGE BASIN and/or SNOW COURSE
UMATILLA, WALLA WALLA, WILLOW, ROCK, LOWER JOHN DAY WATERSHEDS AREA 3 Trouckle Mountain Plw.(T) Trouckle Mountain Plw.(S) Trouckle Mountain Plw.(M) The Mountain Camp Town owman Springs Plw.(T) Town owman Springs Plw.(S) The Mountain Springs Plw.(S) The Mountain Springs Plw.(M) The Mountain Springs Plw.(M) The Mountain Springs Plw.(M) The Mountain Springs Plw.(M) The Mountain Springs Plw.(T) The Mountain Springs Plw.(T) The Mountain Springs Plw.(T) The Mountain Springs Plw.(T) The Mountain Springs The Mou

NOW	THIS YEAR Date Snow Water		PAST RECORD SNOW		Dote Snov		THIS YEAR ote Snow Woter		PAST RECORD Water Content		
RAINAGE BASIN and/or SNOW COURSE	of Survey	Depth (In.)	Cont. (In.)	(Inch	es)	DRAINAGE BASIN and/or SNOW COURSE	Dote af Survey	Snow Depth (In.)	Woter Cont. (In.)	(Inch	es)
HOOD, MILE CREEKS, LOWER DESCHUTES WATERSHEDS AREA 6 Brooks Meadow Clear Lake Clear Lake Pillow (T) Clear Lake Pillow (M) Clear Lake Pillow (M) Clear Lake Expt. Greenpoint Greenpoint Pillow (T) Greenpoint Pillow (M) Mt. Hood Test Site (T) Mt. Hood Test Site (S) Mt. Hood Test Site (M) Mud Ridge Pillow (T) Mud Ridge Pillow (S) Red Hill Pillow (S) Red Hill Pillow (S) Red Hill Pillow (M) Still Creek Switchback Filly Jane LOWER COLUMBIA WATERSHED AREA 7 Blazed Alder Pillow (M) Mt. Hood Test Site (T) Mt. Hood Test Site (T) Mt. Hood Test Site (T) Mt. Hood Test Site (S) Mt. Hood Test Site (M) Mud Ridge Pillow (T) Mud Ridge Pillow (S) Mud Ridge Pillow (S) Mud Ridge Pillow (M) North Fork Res. (S) North Fork Res. (S) North Fork Res. (M) Still Creek WILLAMETTE WATERSHEDS AREA 8 Cascade Summit Cascade Summit Plw.(S) Cascade Summit Plw.(S) Clackamas Lake Plw. (S) Clackamas Lake Plw. (S) Clackamas Lake Plw. (S) Clackamas Lake Plw. (S) Clear Lake Plw. (M) Clear Lake Plw. (M) Clear Lake Expt.	1/28 1/29 1/28 1/28 1/26 1/26 1/26 1/26 1/25 1/25 1/28 1/27 N/R 1/27 N/R 1/27 N/R 1/27 N/R 1/27 N/R 1/27 N/R 1/27 N/R 1/25 1/28 1/28 1/28 1/28 1/28 1/28 1/28 1/29 1/20 1/30	(In.) @ 33 45 45 32 41 160 88 113 112 NTINUE 30 109	10.8 17.8 15.0 16.7 15.0 11.0 17.1 14.8 60.3 32.4 31.0 34.1 41.0 39.4 116.0 39.4 31.0 34.1 16.0 19.8 17.8 17.8 17.8 17.8 17.8 17.8 17.8 17	0.6 1.8 1.6 2.7 9.5 1.5 1.8 1.5 1.5 1.5 1.5 1.5 1.5 1.5 1.5	7.7 11.7 12.4 43.3 44.7 22.4 26.6 11.5 26.7	WILLAMETTE WATERSHEDS (CONT Daly Lake Plw. (T) Daly Lake Plw. (S) Daly Lake Plw. (M) Dead Horse Grade Golden Curry Creek Hogg Pass Hogg Pass Pillow (T) Hogg Pass Pillow (S) Hogg Pass Pillow (M) Holland Meadows Plw. (T) Holland Meadows Plw. (S) Holland Meadows Plw. (S) Holland Meadows Plw. (M) Jump Off Joe Pillow (T) Jump Off Joe Pillow (S) Jump Off Joe Pillow (S) Jump Off Joe Pillow (M) Layng Creek Little Meadows Plw. (T) Little Meadows Plw. (S) Little Meadows Plw. (M) Lost Creek Ranch Lund Park Marion Forks Marion Forks Pillow (S) Marion Forks Pillow (S) Marion Forks Pillow (S) Marion Forks Pillow (M) Marys Peak (Rev.) McCredie Springs McKenzie McKenzie Pillow (S) McKenzie Pillow (S) McKenzie Pillow (M) Mt. Hood Test Site (T) Mt. Hood Test Site (M) Peavine Ridge Pillow (S) Peavine Ridge Pillow (S) Peavine Ridge Pillow (M) Railroad Overpass Railroad Overpass Plw. (T) Railroad Overpass Plw. (S)	Survey 1/30 2/3 2/3 2/3 2/3 1/26 1/26 1/26 1/29 1/29 1/29 1/29 1/26 1/26 1/26 1/25 1/25 1/25 1/25 1/25 1/25 1/26 1/	70 48 110 48 110 15	22.7 18.0 20.7 13.8 5.3 36.8 40.0 38.8 39.9 27.1 15.8 26.2 14.7 15.8 15.3 27.4 8.1 14.2 17.6 14.0 16.0 11.8 2.0 40.5 40.5 40.5 40.5 11.5 20.7 11.5 11.5 11.5 11.5 11.5 11.5 11.5 11	1.8 1.9 1.1 1.2 0.1 4.8 5.9 6.2 6.2 6.2 6.2 6.2 6.2 6.2 6.2 6.2 6.2	9

DRAINAGE BASIN and/or SNOW COURSE	Date	ITTIS TEXAS				SNOW	THIS YEAR		₹ <u> </u>	PAST RECORD	
	Date Snow Woter of Depth Cont. Survey (In.)		Water Content (Inches)		DRAINAGE BASIN ond/or SNOW COURSE	Date af Survey	Snow Depth	Water Cont.	Woter Co	es)	
LAKE COUNTY, GOOSE LAKE WATERSHEDS AREA 11 Adin Mountain (Calif.) Bald Mountain (Nev.) Barley Camp * Bear Flat Meadow * Camas Creek #1 Camas Creek #2 Cedar Pass (Calif.) Colvin Creek * Cox Flat * Crowder Flat (Calif.) * Dismal Swamp (Calif.) * Dismal Swamp #2 Plw.(T) Dismal Swamp #2 Plw.(S) Dismal Swamp #2 Plw.(M) Finley Corrals * Hart Mountain * Little Bally Mtn.(Nev.)* Mt. Bidwell (Calif.) North Star (Calif.) Patton Meadows * Quartz Mountain Plw.(T) Quartz Mountain Plw.(S) Quartz Mountain Plw.(S) Quartz Mountain Plw.(M) Reservation Creek (Calif.) Rogger Meadows * Sherman Valley *	1/28 1/27 1/27 1/27 1/27 1/27 1/27 1/27 1/25 1/27 1/25 1/27 1/25 1/27 1/25 1/27 1/27 1/25 1/27 1/27	38 14 43 24 27 35 40 11 37 14 64 e e 46 8 14 e 42 23 25 36 42	9.9 3.1 12.9 5.3 8.1 9.3 12.0 2.4 11.1 3.1 19.2 23.7 13.8 1.7 3.1 13.2 4.0 6.1 5.2 6.2 10.8 12.6	0.0 1.4 4.2 1.8 1.3 2.6 5.0 4.2 1.3 10.6 4.6 1.0 0.9 1.0	8.8 6.6 7.3 11.1 3.3b 4.8 2.6 11.5 0.9 2.2	HARNEY BASIN watersheds AREA 12 Blue Mountain Springs Blue Mtn. Spgs. Plw.(T) Blue Mtn. Spgs. Plw.(S) Blue Mtn. Spgs. Plw.(S) Blue Mtn. Spgs. Plw.(M) Buck Pasture * Buckskin Lake * Call Meadows * Delintment Lake Denio Creek * Disaster Peak (Nev.) Emigrant Butte Fish Creek * Fish Creek (Rev.) Fish Creek Plw.(T) Fish Creek Plw.(S) Fish Creek Plw.(M) Government Corrals Hart Mountain * Idlewild Camp Alt. Izee Summit Lake Creek R.S. Lake Creek R.S. Lake Creek R.S. Lake Creek R.S. Plw.(S) Lake Creek R.S. Plw.(M) Oregon Canyon * Pueblo Summit *	1/27 N/R 1/27 1/27 1/29 1/29	Snow	17.6 17.2 18.8 5.8 0.3 3.6	7.8 6.2 7.0 3.9 0.8 0.0 1.8 3.0 1.0 12.0 9.1 6.0 1.3 1.0 1.8 4.8 4.7 4.8 4.1	ontent es)
Patton Meadows * Quartz Mountain Quartz Mountain Plw.(T) Quartz Mountain Plw.(S) Quartz Mountain Plw.(M) Reservation Creek (Calif.) Rogger Meadows * Sherman Valley * Silver Creek Silver Creek Plw.(T) Silver Creek Plw.(S) Silver Creek Plw.(M) State Line (Calif.) * Strawberry Strawberry Plw. (T) Strawberry Plw. (S) Strawberry Plw. (M) Summer Rim * Summer Rim Summer Rim Plw. (T) Summer Rim Plw. (S)	1/29 1/28 1/29 1/29 1/28	44 23 25 36 42 42 12 41 20 27 45 e	4.0 6.1 5.2 6.2 10.8	1.0 0.9 1.0 0.1	4.6 	Izee Summit Lake Creek R.S. Lake Creek R.S. Plw.(T) Lake Creek R.S. Plw.(S) Lake Creek R.S. Plw.(M) Oregon Canyon * Pueblo Summit * Rock Springs Rock Springs Plw.(T) Rock Springs Plw.(S) Rock Springs Plw.(M) Silvies * Silvies Silvies Pillow (T) Silvies Pillow (S) Silvies Pillow (M) Snow Mountain	1/26 1/27 1/27 1/27 1/27 1/29 N/R 1/26 1/26 1/26	40 42 43 37	10.2 12.0 15.6 13.0 14.5 10.4 7.0 6.0 8.0 7.3	1.8 4.8 4.7 4.8 4.1 2.4 2.2 1.0 4.9 4.5 4.3 5.3 2.6 3.7 1.4	5.7 7.6 3.7
Summer Rim Plw. (M) Sycan Flat *	1/25	e 27	6.5	0.6	5.4	<pre>starr Ridge Pillow (I) Starr Ridge Pillow (S) Starr Ridge Pillow (M) Stinking Water Trout Creek * "V" Lake * * Aerial N/R No Report TR Trace T = Telemetry Measurement S = Snow Tube Measurement</pre>	1/26 1/26 1/29 1/29 1/29	33 19 39 35	8.8 9.2 5.6 10.9 13.0	1.2 1.4 3.2 4.2	2.1 4.5

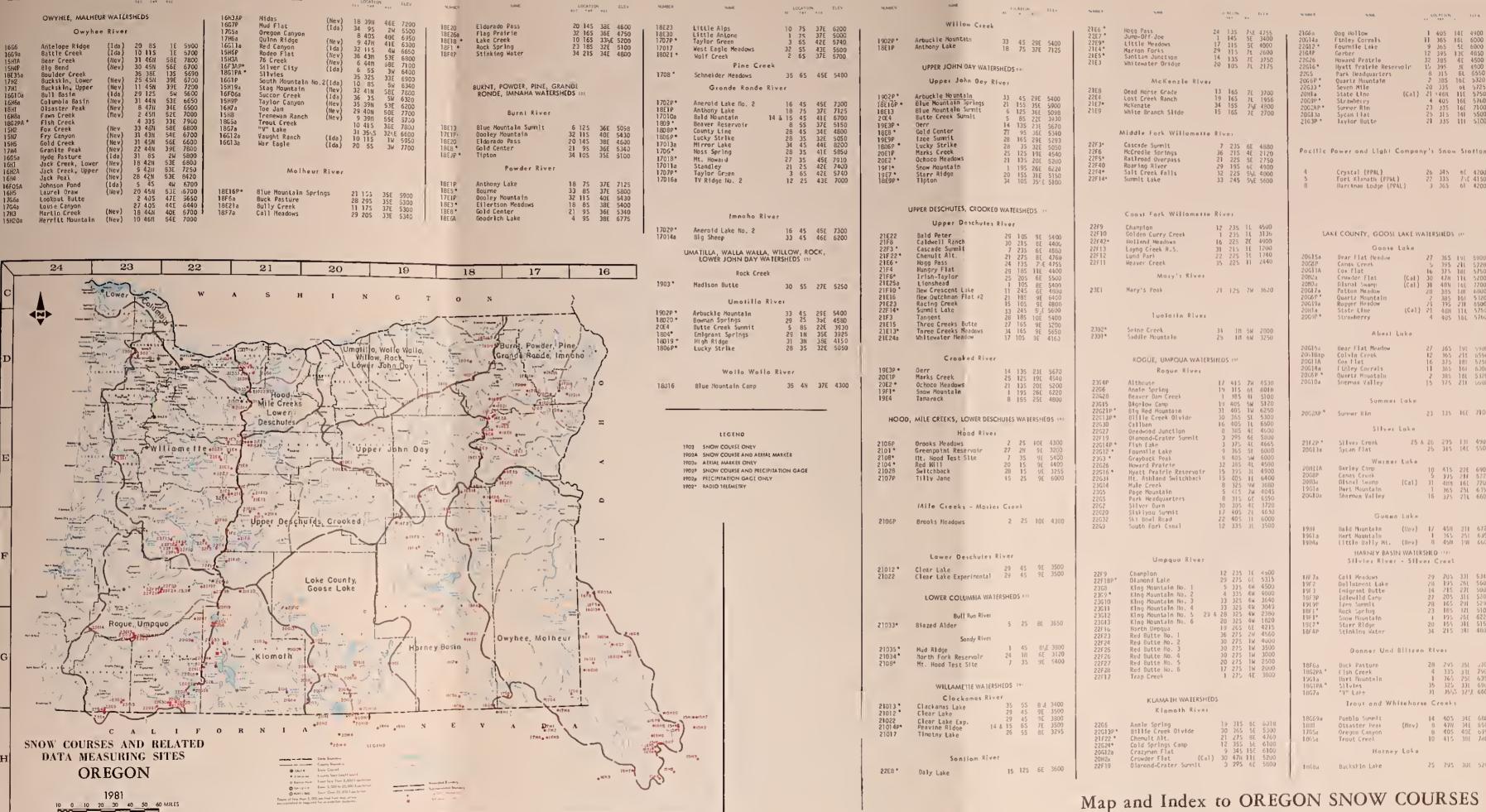
RECIPITATION (Inches)		CURRENT IN	FORMATION	PAST F	RECORD
DRAINAGE BASIN and PRECIPITATION GAGE LOCATION	ELEVATION	Date of Reading	Precip- itation	Last Year	Average
Arbuckle Mountain (Morrow County)	5400	From 12/29 To 1/29	8.50"		
Bigelow Camp (Josephine County)	5120	From 9/30 To 1/28	60.90"		
Blue Mountain Springs (Grant County)	5900	From 12/31 To 1/27	6.84"		
Bourne (Baker County)	5800	From 9/25 To 1/27	23.64"		
Cascade Summit (Lane County)	4880	From 12/28 To 1/28	14.28"		
Chemult (Klamath County)	4760	From 10/1 To 2/1	22.56"		
Clear Lake (Wasco County)	3500	From 12/31 To 1/28	7.80"		
County Line (Umatilla County)	4800	From 12/29 To 1/29	10.92"		
Daly Lake (Linn County)	3600	From 10/2 To 2/3	50.28"		
Derr (Wheeler County)	5670	From 9/28 To 1/29	19.80"		
Eilertson Meadow (Baker County)	5400	From 1/2 To 1/27	5.88"		
Emigrant Springs (Umatilla County)	3925	From 12/29 To 1/29	9.24"		
Fish Creek (Harney County)	7900	From 9/29 To 1/27	34.32"		
Fish Lake (Jackson County)	4665	From 12/30 To 1/28	7.92"		
Fourmile Lake (Klamath County)	6000	From 9/24 To 1/28	43.92"		
Gold Center (Grant County)	5340	From 1/2 To 1/27	5.28"		
High Ridge (Umatilla County)	4150	From 12/31 To 2/1	12.00"		
Hogg Pass (Jefferson County)	4755	From 12/29	12.84"		
Holland Meadows (Lane County)	4900	From 9/30 To 1/29	52.56"		
Hyatt Prairie (Jackson County)	4900	From 12/31 To 2/1	5.04"		
Irish-Taylor (Deschutes County)	5500	From 10/1 To 1/28	43.32"		
Jump Off Joe (Ļinn County)	3400	From 10/1 To 1/29	54.96"		
King Mountain (Douglas County)	4500	From 12/29 To 1/26	8.64"		

⁽a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

ECIPITATION (Inches)		CURRENT INF	ORMATION	PAST RECORD		
DRAINAGE BASIN and PRECIPITATION GAGE LOCATION	ELEVATION	Date of Reading	Precip- itation	Last Year	Average	
Lake Creek (Grant County)	5120	From 12/30 To 1/27	4.92"			
Little Meadows (Linn County)	4000	From 9/24 To 2/4	81.00"			
Lucky Strike (Umatilla County)	5050	From 12/29 To 1/29	6.50"			
Madison Butte (Morrow County)	5250	From 12/29 To 1/29	3.60"			
Marion Forks (Linn County)	2730	From 12/29 To 1/26	13.68"			
McKenzie (Lane County)	5000	From 9/30 To 2/1	69.96"			
Moss Springs (Union County)	5850	From 10/1 To 1/28	25.80"			
Mt. Howard (Wallowa County)	7910	From 9/24 To 1/29	53.16"			
Mud Ridge (Clackamas County)	4050	From 12/29 To 1/28	13.32"			
New Crescent Lake (Klamath County)	4800	From 9/29 To 1/27	35.04"			
Ochoco Meadows (Crook County)	5200	From 9/28 To 2/2	20.76"			
Quartz Mountain (Lake County)	6300	From 12/29 To 1/29	3.12"			
Peavine Ridge (Clackamas County)	3500	From 10/1 To 1/27	43.68"			
Railroad Overpass (Lane County)	2750	From 12/28 To 2/1	8.76"			
Red Hill (Hood River County)	4400	From 10/8 To 1/27	61.80"			
Roaring River (Lane County)	4900	From 10/1 To 1/29	49.92"			
Rock Springs (Grant County)	5100	From 12/29 To 1/26	1.80"			
Salt Creek Falls (Lane County)	4000	From 12/28 To 1/25	11.28"			
Santiam Junction (Lane County)	3750	From 12/29 To 1/26	13.32"			
Schneider Meadows (Baker County)	5400	From 10/2 To 1/29	27.84"			
Silver Creek (Lake County)	5720	From 1/6 To 2/1	1.52"			
Snow Mountain (Harney County)	6220	From 10/2 To 1/29	17.75"			

⁽a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

PRECIPITATION (Inches)		CURRENT IN	FORMATION	PAST R	ECORD
DRAINAGE BASIN and PRECIPITATION GAGE LOCATION	ELEVATION	Date of Reading	Precip- itation	Last Year	Average C
Starr Ridge (Grant County)	5156	From 12/30 To 1/26	4.20"		
Strawberry (Lake County)	5760	From 10/7 To 1/28	18.24"		
Summit Lake (Klamath County)	5600	From 10/1 To 1/27	50.88"		
Taylor Butte (Klamath County)	5040	From 12/22 To 1/25	3.48"		
Taylor Green (Baker County)	5740	From 9/30 To 1/28	22.68"		
Three Creek Meadows (Deschutes County)	5650	From 9/30 To 1/26	36.48"		
Tipton (Baker County)	5100	From 1/2 To 1/27	5.52"		
Wolf Creek (Union County)	5700	From 10/1 To 1/27	16.68"		





The Following Organizations Cooperate in the Oregon Snow Survey Work

STATE

Idaho Cooperative Snow Surveys
Nevada Cooperative Snow Surveys
Oregon State University
Oregon Department of Water Resources
Soil and Water Conservation Districts of Oregon
COUNTY

Douglas County Water Resources Survey FEDERAL

Department of Agriculture
Cooperative Extension Service
Forest Service
Soil Conservation Service
Department of Army
Corps of Engineers
Department of Commerce
NOAA, National Weather Service
Department of Energy
Bonneville Power Administration
Department of the Interior
Eureau of Land Management
Fish and Wildlife Service

Geological Survey
Bureau of Reclamation
PUBLIC UTILITIES

Pacific Power and Light Company Portland General Electric Company California-Pacific National

MUNICIPALITIES

City of Baker

City of La Grande

City of Portland

City of The Dalles

City of Walla Walla

IRRIGATION DISTRICTS

Arnold Irrigation District Associated Ditch Companies Burnt River Irrigation District Central Oregon Irrigation District East Fork Irrigation District Grants Pass Irrigation District Hood River Irrigation District Jordan Valley Irrigation District Juniper Flat Irrigation District Lakeview Water Users, Incorporated Medford Irrigation District Middle Fork Irrigation District North Board of Control - Owyhee Project Ochoco Irrigation District Rogue River Valley Irrigation District South Board of Control - Owyhee Project Squaw Creek Irrigation District Talent Irrigation District Tumalo Project

Vale - Oregon Irrigation District Warmsprings Irrigation District PRIVATE ORGANIZATIONS
The Crag Rats, Hood River, Oregon

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